U.S. DEPARTMENT OF ENERGY | Legacy Management

Bayo Canyon, New Mexico, Site

FACT SHEET

This fact sheet provides information about the Bayo Canyon, New Mexico, Site.
This site is managed by the U.S. Department of Energy Office of Legacy Management.

Site Description and History

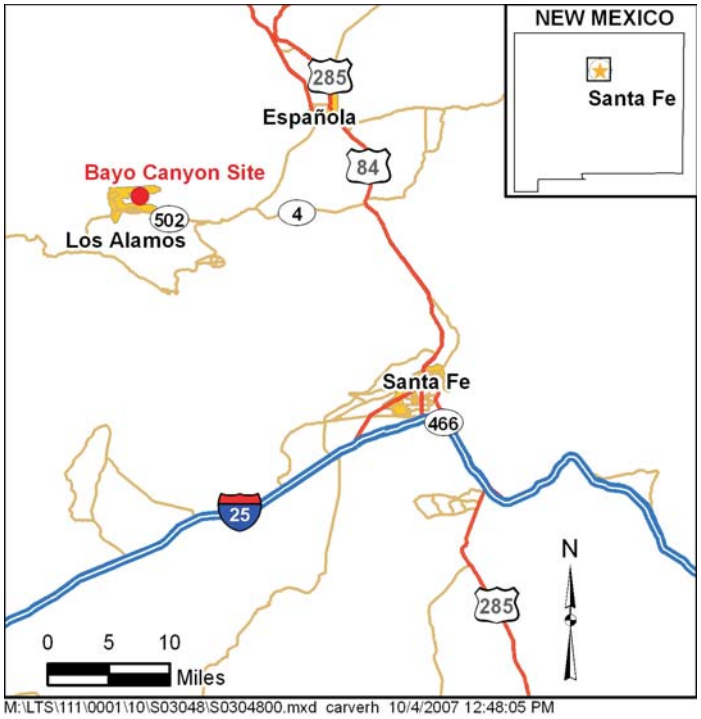
The Bayo Canyon, New Mexico, Site is located approximately 3 miles west of Los Alamos, New Mexico, 25 miles northwest of Santa Fe, and 60 miles north-northeast of Albuquerque. Partly in Los Alamos County and partly in Santa Fe County, Bayo Canyon is one of numerous canyons that cut into the Pajarito Plateau in north-central New Mexico.

The U.S. government owned the site from 1943 to 1967 as part of the Los Alamos National Laboratory (LANL) operations. The Manhattan Engineer District (MED) constructed facilities in Bayo Canyon in 1943 and 1944. MED and later the U.S. Atomic Energy Commission (AEC) used the site between 1944 and 1961 as a firing range for high explosive experiments in conjunction with research on nuclear development. These explosions scattered radioactive materials, resulting in radioactive contamination of the site. The disposal of radioactive wastes from radiochemistry operations added to this contamination.

The original 350-acre site (known as Technical Area 10) contained a radiochemistry laboratory, solid waste disposal facilities, two assembly buildings, an inspection building, a personnel building, control buildings at two detonation control complexes with adjacent firing pads, and contaminated leach pits from the radiochemistry laboratory.

AEC decommissioned the site between 1960 and 1963 with the demolition of structures, cleanup of surface debris, and excavation of contaminated waste disposal facilities. By 1967 the site was sufficiently free of contamination to allow its release from federal government control, and it was transferred by quitclaim deed to its present owner, Los Alamos County.

LANL resurveyed the site in 1976 to determine whether further corrective actions were warranted as part of the Formerly Utilized Sites Remedial Action Program (FUSRAP). The LANL survey identified a 1.5-acre area that encompassed the former radiochemical laboratory and solid and liquid wastes disposal areas. Subsurface soil samples showed the potential for radiological health problems from strontium-90 if the soil were ever disturbed. After evaluating remedial action alternatives,



Location of the Bayo Canyon, New Mexico, Site

the U.S. Department of Energy (DOE) selected the "minimal action" scenario given the levels of contamination. Sampling indicated that contamination depth was between 8 feet and 40 feet; therefore, six permanent monuments, with appropriate signage ("Buried radioactive material"), were emplaced around the 1.5-acre area. Excavation is prohibited until the year 2142, when the strontium-90 will have undergone sufficient radioactive decay that concentrations in soil will be below cleanup criteria levels.

Regulatory Setting

AEC, a predecessor agency to DOE, established FUSRAP in March 1974 to evaluate radioactive contamination at sites where work was performed to develop the nation's nuclear weapons and early atomic energy program. After reviewing records and radiometric surveys for more than 600 sites connected with the nuclear weapons program, DOE identified 46 sites that required cleanup, including the Bayo Canyon Site.

Congress transferred responsibility for FUSRAP site characterization and remediation to the U.S. Army Corps of Engineers in 1997. DOE retains responsibility for long-term surveillance and maintenance of remediated FUSRAP sites.

The Bayo Canyon Site was remediated to criteria in *Interim Soil Limits for D&D Projects*, LA-UR-79-1865-Rev. (pre-FUSRAP standards) and *Radiological Guidelines for Application to DOE's Formerly Utilized Sites Remedial Action Plan* (for strontium-90 in soil). A letter from the New Mexico State Environmental Improvement Division to the County of Los Alamos, dated 1979, concurred that contamination at the site was not a hazard.

In fiscal year 2004, DOE transferred responsibility for the Bayo Canyon Site from the DOE Office of Environmental Management to the DOE Office of Legacy Management.

Current Site Conditions

A final report on remedial action indicated that the radiological condition of the Bayo Canyon Site is in compliance with applicable DOE standards and guidelines for cleanup of residual radioactive contamination. Based on this review, DOE determined that radiological conditions at the Bayo Canyon Site comply with decontamination criteria to protect health, safety, and the environment. Covenants prepared for the property deeds restrict excavation of the site until the year 2142, when strontium-90 will have decayed to acceptable levels at the site and the site can be re-evaluated for use. In the meantime, Los Alamos County inspects the site on a quarterly basis to prevent unauthorized excavation or grading while the deed restriction is in effect.

LANL has posted a portion of the 1.5-acre restricted area as a soil contamination area and restricted access by erecting chain link fence panels around the contamination area. The State of New Mexico is a regulator.

Entrance to the Bayo Canyon, New Mexico, Site

Legacy Management Activities

The DOE Office of Legacy Management, in accordance with requirements at the conclusion of the 1967 remedial action, does not conduct monitoring, maintenance, or site inspections at the Bayo Canyon Site. DOE Legacy Management responsibilities consist of managing site records and responding to stakeholder inquiries.

LANL conducts monitoring and site assessments under a comprehensive radiological control program.

Contacts

Documents related to the Bayo Canyon Site are available on the DOE Legacy Management website at http://www.LM.doe.gov/land/sites/nm/bayo/bayo.htm.

For more information about DOE Legacy Management activities at the Bayo Canyon Site, contact

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